

Friday, February 10th

- Reminder: Extra help Tuesday's and Thursday's at lunch hour
- Next Test/Quiz: Proportional Reasoning Quiz TODAY
- Next Assignment Due: TODAY

Today:

- Quiz today and Assignment due!
- Online Survey -- Need netbooks!
- Begin Section 1.3 Setting the Price
- Notes/Examples/Practice questions
- Classwork/Homework

Lesson 3

1.3

Setting a Price

MATH ON THE JOB

Maurice Meagher is the owner of Case Handyman and Remodeling, a business that performs renovation, remodeling, building, and designing services in Halifax, Nova Scotia. Maurice grew up in Port Hawkesbury, NS, where he went to high school at the Strait Area Education Recreation Center.

Maurice's job includes drawing up yearly and monthly budgets. He also calculates averages of past sales to help him forecast changes in staffing and cash flow. Another important part of Maurice's job is estimating how much it will cost to complete different building, renovation, or remodeling projects.

Maurice is estimating the cost of remodeling the floors of a home. He calculates that the floor space measures 1500 square feet. He determines that the cost of the entire job, including labour and materials such as ceramic tile and grout, will be \$27 000.00. What is the cost per square foot for the remodeling?



Maurice's job involves estimating the cost of building decks and sunrooms.

The price at which goods and services are sold has an impact on you whether you are a consumer or working in a business.

Prices rise and fall due to consumer demand and supply. If demand rises, suppliers are able to charge more. If demand falls, or if there is a large supply of a product, prices may fall.

Prices also rise and fall according to the cost of the materials and labour that go into the creation of a product or service. An additional amount, called **markup**, is added to these costs so that a profit can be made. For example, when the owner of a retail store buys items to re-sell, he or she buys them at a wholesale price. This price is then marked up and the item is sold at a higher retail price. The markup is usually a **percent** of the wholesale price.

Percent:

- percent means "out of 100"
- a percentage is a ratio in which the denominator is 100

There are 3 ways to write percent:

$$30\% \quad \frac{30}{100} \quad 0.30$$

$$0.5\% = 0.005$$

A few basic examples using percentages:

#1 Change the following percents into decimals: ($\div 100$)

a. $37\% = 0.37$

b. $205\% = 2.05$

c. $7\% = 0.07$

#2 Find the percent of the number:

80% of 60

$$0.80 \times 60 = 48$$

#3 Find the original number:

45% of what number is 10?

$$\frac{0.45x = 10}{0.45} \quad \frac{10}{0.45}$$

$$x = 22.\bar{2}$$

Percent

Copy & Complete

Practice Questions:

#1 Change the following percents into decimals:

a. 25%

b. 105%

c. 2%

#2 Find the percent of the number:

a. 25% of 45

b. 33% of 50

c. 4% of 20

#3 Find the original number:

a. 30% of what number is 42?

b. 55% of what number is 12?

c. 75% of what number is 20?